

NEW PADDED HARNESS FOR SELF-ACQUISITION OF RESTING 12-LEAD ECGs

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We have developed a dry-electrode harness that permits easy, rapid, and unsupervised self-acquisition of resting 12-lead ECGs without the use of any disposables.[1] Various other advantageous features of the harness include: 1) padded or inflatable cushions at the lateral sides of the torso that function to press the left arm (LA) and right arm (RA) dry electrodes mounted on cushions against sideward (as shown in the Figure below) or downward-rested arms of the subject; 2) sufficient distal placement of the arm electrodes with good abutment and without the need for adhesives, straps, bands, bracelets, or gloves on the arms; 3) padding over the sternum to avoid “tenting” in the V1 through V3 (and V3R, when present) electrode positions; 4) easy-to-don, one-piece design with an adjustable single point of connection and an adjustable shoulder strap; and 5) Lund or “modified Lund” placement of the dry electrodes, the results of which more effectively reproduce results from “standard” 12-lead ECG placements than do results from Mason-Likar lead placements.[2]

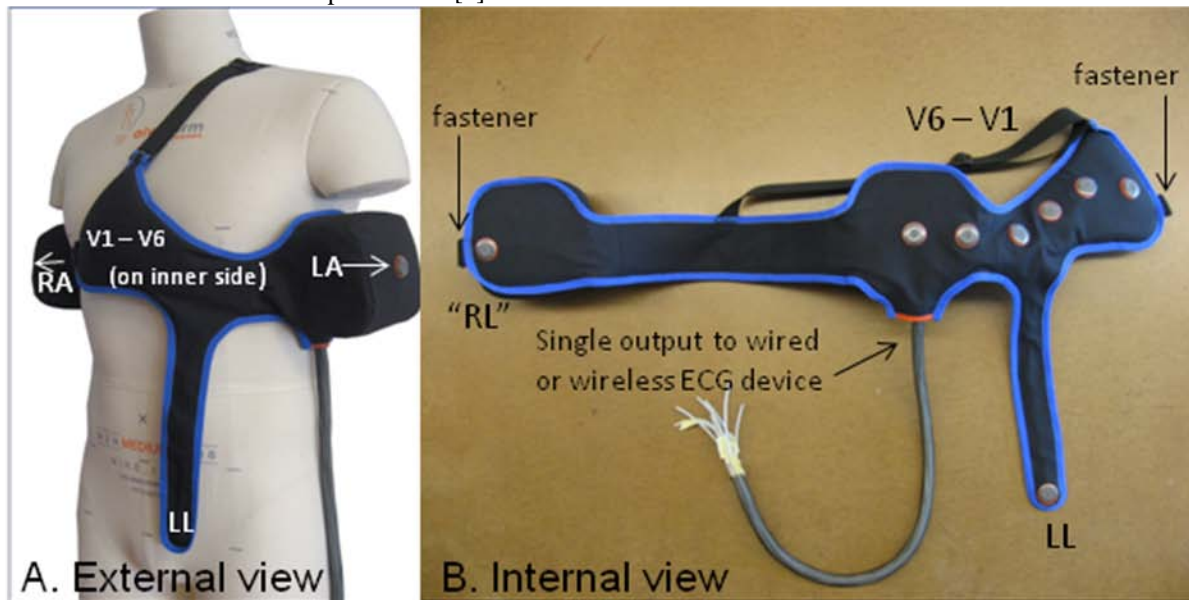
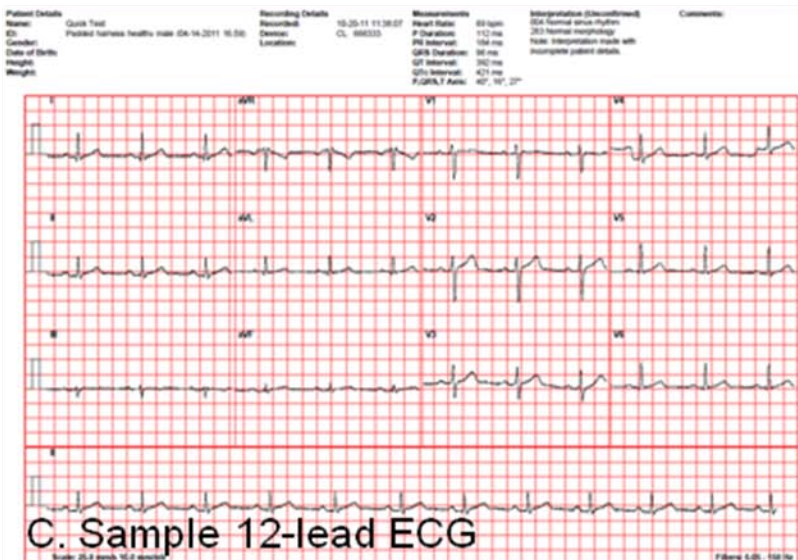


Figure: External (A) and internal (B) views of the harness and a sample normal 12-lead ECG (C) obtained from a seated subject using the harness. RA, right arm; LA, left arm; LL, left leg; and RL, right leg electrodes, respectively.



REFERENCES

- [1] Schlegel, T.T. and Rood, A.T. (2011), USPTO Patent Application
- [2] Welinder, A. et al (2010) *Am J Cardiol* 106:581–586.